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EMERGENCY NOTIFICATION AND OVERRIDE SERVICE  
IN A MULTIMEDIA-CAPABLE NETWORK

5 CROSS-REFERENCE TO RELATED APPLICATION(S)

[0001] This application discloses subject matter related to the subject matter disclosed in the following commonly owned co-pending patent application(s): (i) "User Verification Service In A Multimedia-Capable Network," filed \_\_\_\_\_, Ser. No.: \_\_\_\_\_ (Attorney Docket Number 1285-0047US), in the name(s) of: Babu V. Mani; (ii) "Distinctive Call Notification," filed \_\_\_\_\_, Ser. No.: \_\_\_\_\_ (Attorney Docket Number 1285-0045US), in the name(s) of: Babu V. Mani; 15 (iii) "Call Party Profile Presentation Service In A Multimedia-Capable Network," filed \_\_\_\_\_, Ser. No.: \_\_\_\_\_ (Attorney Docket Number 1285-0048US), in the name(s) of: Babu V. Mani; (iv) "Direct Connect Service In A Multimedia-Capable Network," filed 20 \_\_\_\_\_, Ser. No.: \_\_\_\_\_ (Attorney Docket Number 1285-0044US), in the name(s) of: Babu V. Mani; and (v) "Call Waiting Service In A Multimedia-Capable Network," filed \_\_\_\_\_, Ser. No.: \_\_\_\_\_ (Attorney Docket Number 1285-0043US), in the name(s) of:

Babu V. Mani, which are hereby incorporated by reference for all purposes.

5 BACKGROUND OF THE INVENTION

Technical Field of the Invention

[0002] The present invention generally relates to telecommunication and data communication services. More particularly, and not by way of any limitation, the present invention is directed to an emergency notification and override service in a multimedia-capable next-generation network.

Description of Related Art

15 [0003] Over the last two decades or so, telecommunication services have evolved rapidly from simple telephone calls and fax communications to a host of advanced services such as multi-party conferences, voice mail, call forwarding, caller ID, call waiting, et cetera. This rapid evolution has been made possible primarily due to the successful deployment of the Intelligent Network (IN) and Advanced IN (AIN) architecture using Signaling System No. 7 (SS7) as the out-of-band signaling protocol infrastructure.

20

25 Similarly, data services have also followed a significant transformation from basic text messaging in the 1980s to the World Wide Web and Internet of today, where transporting diverse media has become commonplace. For example, bandwidth-intensive services such as desktop

video conferencing, video on demand, telemedicine, real-time audio, and many other applications are driving the demand for simultaneous support of different types of services on the same public network.

5     **[0004]**     Coupled with the phenomenal popularity of the Internet, recently there has been a tremendous interest in using the packet-switched network (PSN) infrastructure employed in the data networks (e.g., those based on Internet Protocol (IP) addressing) as a replacement for, 10 and/or as an adjunct to, the existing circuit-switched network (CSN) infrastructure deployed in today's voice networks. Several advantages are expected to be realized due to such integration. From network operators' viewpoint, the inherent traffic aggregation in PSN allows 15 for a reduction in the cost of transmission and the infrastructure cost per end-user. Ultimately, such cost reductions enable the network operators to pass on the savings to subscribers or, more generally, users. Also, operators of a new breed of service-centric networks 20 (referred to as next-generation networks, distinct from the existing voice-centric and data-centric networks) can offer enhanced services with integrated voice/data/video to users who will be using endpoints of diverse multimedia capabilities.

25     **[0005]**     As alluded to hereinabove, several advances have taken place in both data and voice services. However, the current data-centric and voice-centric services do not provide the gamut of enhancements that

are possible with the use of multimedia capabilities in a next-generation network.

SUMMARY OF THE INVENTION

5     **[0006]**     Accordingly, the present invention advantageously provides an enhanced emergency message notification and override service in a multimedia-capable network wherein a select emergency alert scheme is effectuated with respect to an incoming emergency  
10   message. Preferably, the multimedia-capable network is provisioned as a next-generation network having a decoupled service architecture that is facilitated by the use of multimedia softswitch technology.

15   **[0007]**     In one aspect, the present invention is directed to an emergency message notification system and method in a multimedia-capable network for effectuating a subscriber-selectable notification scheme with respect to an incoming emergency message directed to the subscriber from an authorized entity. In certain  
20   exemplary embodiments, an emergency override feature is also implemented wherein any restrictions to notification delivery may be superseded. Upon receiving the incoming emergency message at a network node serving the subscriber, a multimedia session engine is invoked to  
25   launch a call treatment application for the subscriber. Based on at least a portion of the parametric information relating to the incoming emergency message, an emergency notification profile associated with the subscriber is

queried to determine a particular emergency alert scheme to be provided. Preferably, a subscriber-selectable device is actuated thereafter in order to effectuate the selected emergency alert scheme with respect to the incoming emergency message. In a preferred exemplary embodiment, the subscriber-selectable device comprises a multimedia-capable interface operable with the subscriber terminal, wherein the alert scheme is effectuated without interrupting the current session or sessions in which the terminal may be engaged.

**[0008]** Depending on how the service architecture is implemented, the call treatment application may be provisioned as a service application hosted on a third-party server platform coupled to a public packet-switched network (e.g., the Internet), as a telecom-hardened, carrier-class service application hosted on dedicated IN/AIN-compliant nodes such as multimedia Service Control Points (SCPs) and application servers, or as a centralized service with service logic embedded in SS7 nodes (e.g., Service Switching Points or SSPs) and multimedia softswitch elements.

**[0009]** In another aspect, the present invention is directed to a computer-accessible medium operable with at least a network element disposed in a multimedia-capable next-generation network. The computer-accessible medium is further operable to carry a sequence of instructions which, when executed by at least one processing entity associated with the network, causes to be performed at

least a portion of the steps of the multimedia-capable emergency message notification method set forth hereinabove.

BRIEF DESCRIPTION OF THE DRAWINGS

5     **[0010]**     A more complete understanding of the present invention may be had by reference to the following Detailed Description when taken in conjunction with the accompanying drawings wherein:

10     **[0011]**     FIG. 1 depicts an exemplary high-level architectural scheme of a next-generation, multimedia-capable network employed for practicing the teachings of the present invention;

15     **[0012]**     FIG. 2 depicts a functional block diagram associated with the exemplary high-level architectural scheme shown in FIG. 1;

**[0013]**     FIG. 3 depicts a functional block diagram of a multimedia call/session engine operable in accordance with the teachings of the present invention;

20     **[0014]**     FIG. 4 depicts an exemplary next-generation network capable of multimedia services;

**[0015]**     FIG. 5 depicts an exemplary service network which employs a multimedia-based emergency notification system and method in accordance with the teachings of the present invention;

25     **[0016]**     FIG. 6 depicts an exemplary multimedia interface with browser navigation for effectuating

multimedia calls and subscriber-selectable emergency notification alerts in accordance with the teachings of the present invention;

[0017] FIG. 7 depicts an exemplary embodiment of a subscriber's emergency notification profile;

[0018] FIG. 8 is a flow chart of the steps involved in an exemplary emergency notification method of the present invention;

[0019] FIG. 9 is a flow chart of the steps involved in an exemplary methodology for directing an emergency message towards a subscriber by an authorized individual; and

[0020] FIG. 10 is a flow chart of the steps involved in an exemplary methodology for directing an emergency message towards a subscriber by an entity.

#### DETAILED DESCRIPTION OF THE DRAWINGS

[0021] In the drawings, like or similar elements are designated with identical reference numerals throughout the several views thereof, and the various elements depicted are not necessarily drawn to scale. Referring now to FIG. 1, depicted therein is an exemplary high-level architectural scheme 100 of a next-generation network that is capable of effectuating multimedia communications. In the context of the present patent application, the term "multimedia" broadly refers to visual information, aural information, and other

information. Visual information is generally divided into two categories: (i) still pictures and graphics, and (ii) full-motion video or animation. Aural information includes both speech and non-speech categories. Other information categories can include text, computer data, etc. Multimedia communication involves, accordingly, integrated presentation of text, graphics, video, animation, sound, and the like, using different media and multiple information elements in a single application or session.

**[0022]** The exemplary architectural scheme 100 of the next-generation network is preferably effectuated by implementing what is known as softswitch technology. Essentially, the softswitch functionality is operable to separate the call control functions of a call (or, "session control" functions in the context of a multimedia communication session) from the media gateways (i.e., transport layer(s)) that carry it. Call control features can vary, but call routing, admission control, connection control (such as creating and tearing down sessions), and signaling interworking -- such as from SS7 to Session Initiation Protocol (SIP) -- are usually included. These functionalities may collectively be referred to as session control. The softswitch functionality can also include: (i) the ability to route a call based on customer database information, (ii) the ability to transfer control of the call to a node



disposed in another network, and (iii) support of management functions such as provisioning, billing, etc.

**[0023]** Continuing to refer to FIG. 1, the architectural scheme 100 accordingly includes an access/transport level 102 which interacts with a session control level 104 via a plurality of open-standard protocols and application programming interfaces (APIs). The session control level 104 is operable, in turn, to interface with an application services/features level 106 via a second set of open-standard protocols and APIs. As will be described in greater detail hereinbelow, various multimedia services, applications, and features may be provided as part of this services level 106. Also, some of the back office management and provisioning functionality can be included herewith.

**[0024]** Those skilled in the art should readily appreciate that several protocols and APIs are available for effectuating the architectural scheme 100 set forth hereinabove, which effectively decouples the session control layer from the underlying access/transport layer as well as the service application layer. For example, these protocols -- which effectuate media control APIs, signaling APIs, and service APIs -- include: SIP, H.323, Call Processing Language (CPL), Media Gateway Controller Protocol (MGCP), Internet Protocol Device Control (IPDC), H.248, MEGACO, Real-Time Protocol (RTP), Java™ APIs for Integrated Networks (JAIN), Resource Reservation Protocol (RSVP), Parlay, Lightweight Directory Access Protocol

(LDAP), Markup Languages such as Extensible Markup Language (XML), Multi Protocol Label Switching (MPLS), and the like. Additionally, access to the existing IN/AIN service architecture is also available via  
5 suitable SS7 or IP-based interfaces.

**[0025]** The softswitch functionality is realized essentially as a software implementation that can reside on a single network element, or be distributed across multiple nodes. Also, different levels of decoupling and  
10 interfacing may be provided in an actual softswitch implementation. For example, SS7 functionality may be embedded within a softswitch element or kept separate. In other implementations, the softswitch functionality may sit on top of a media gateway (MGW), instead of being  
15 physically distinct, as long as transport and control planes are decoupled.

**[0026]** By creating separate planes for control and switching and leveraging software's programmability, service providers can combine transport services and  
20 control protocols freely in order to facilitate seamless migration from one service to another. Best-in-class solutions and products from multiple vendors can be advantageously deployed in the next-generation network because of open standards and APIs. Further, open APIs  
25 to the service layer (including a suitable service creation environment (SCE)), along with service creation, service mediation and service brokering standards, enable

creation of numerous advanced, multimedia-enhanced services with faster service rollout.

[0027] FIG. 2 depicts a functional block diagram associated with the exemplary architectural scheme shown in FIG. 1. Three layers corresponding to the three decoupled levels of the architectural scheme are particularly illustrated. An access/transport layer 202 is exemplified with a plurality of multimedia-capable H.323 terminals 208, GWs 210 (including MGWs and Access Gateways or AGWs) for providing access to one or more Integrated Access Devices (IADs) (not shown) and other communication appliances, and multimedia-capable SIP terminals 212. For purposes of the present invention, all such multimedia-capable access devices (including multimedia-capable phones, computers, game stations, television sets, etc.) may be referred to as multimedia appliances and are preferably provided with one or more man/machine interfaces (e.g., video/still cameras, microphones, display screens, keyboards, pointing devices, joy sticks, track balls, voice recorders, audio-to-text or text-to-audio converters, and the like) for accepting or capturing multimedia responses or inputs associated with a user. Also, in some exemplary implementations, the multimedia appliances may be equipped with suitable biometric ID readers and sensors, e.g., fingerprint readers, retinal scanners, voice recognition systems, etc.

**[0028]** Continuing to refer to FIG. 2, control layer 204 of the decoupled architectural scheme illustrates the functionality of an exemplary multimedia call/session engine implemented as part of a multimedia softswitch in a network. A call/session and connection control block 226 is provided with a plurality of access and transport interfaces 214 to couple to the underlying access/transport layer 202. As alluded to hereinabove, these interfaces include, e.g., SIP interfaces 216, H.323 interfaces 218, SS7 interfaces 220, SigTran interfaces 222 (for SS7-over-IP) and H.248 interfaces 224. The functionality of the call/session and connection control block 226 is associated with a plurality of modules such as, for instance, a resource management module 228, a traffic metering/measurement module 230, an event log module 232, a screening module 234, alarms 236, a billing module 238, a bandwidth management module 240, a routing module 242, a Quality of Service (QoS) module 244, feature interactions module 246, a provisioning module 248, and a translation module 250.

**[0029]** A plurality of application interfaces 252 are available to the multimedia session engine for interacting with an application layer 206. A Parlay interface 254 and a SIP interface 256 are exemplified herein. Reference numerals 258-1 through 258-N refer to a plurality of application servers (ASs) that are operable to host various services, features and management policies. One or more legacy service nodes

(e.g., a Service Control Point or SCP) may also be provided as part of the application layer 206 in the form of one or several AS nodes, e.g., AS 260. Preferably, interfaces to third-party AS nodes 262 are also included.

5     **[0030]**     Application layering in the decoupled architectural scheme can be architected in three ways. Custom applications such as e-commerce, e-business, e-residence (home appliance control, residential security, etc.), e-health, and the like, may reside on the Internet  
10     as applications hosted on third-party platforms. Specialized services such as Virtual Private Networks (VPNs), prepaid services, etc., and multimedia applications for business and residential use may be provided as distributed applications hosted on dedicated  
15     telecom-hardened platforms. Carrier-class AS nodes, multimedia-capable SCPs, etc. typically comprise such platforms. A select group of legacy service offerings, for commercial as well as residential applications, may be provided as centralized applications that are based on  
20     SS7 platforms (such as signal switching points (SSPs)) and softswitch nodes.

25     **[0031]**     Referring now to FIG. 3, depicted therein is a high-level functional block diagram of a call/session engine 300 of a multimedia softswitch operable in accordance with the teachings of the present invention. As described in detail hereinabove, both access/transport interfaces 214 and application layer interfaces 252 are available to the call/session engine 300 for effectuating

its softswitch functionality. A control engine 302 is responsible for call/session control and connection control (analogous to the traditional call control function or CCF). An application engine 304 is included for application triggering and managing feature/policy interaction with respect to a triggered service application. In addition, the application engine 304 is preferably operable to open suitable APIs for supporting enhanced services. When third-party applications are invoked, the application engine 304 may also provide firewall management and subscriber access management for service selection and initiation. An access engine 306 is operable to effectuate online user authentication and authorization and validate service usage rights. Also, roaming management may be provided by the access engine 306 for subscription retrieval, roaming retrieval and registration negotiation.

**[0032]** FIG. 4 depicts an exemplary next-generation multimedia network 400 that is capable of providing a plurality of multimedia services in accordance with the teachings of the present invention. For purposes of the present invention, network 400 and its variants and exemplary implementations will be referred to as a "service network." One or more legacy circuit-switched networks (CSNs) 402 such as the Public Switched Telephone Network (PSTN) for wireline telephony and the Public Land Mobile Network (PLMN) for wireless telephony are coupled to one or more packet-switched networks (PSNs) 406 such

as the IP-based Internet, ATM-based packet network, etc. Further, the PSN portion 406 may also encompass such other private IP-based networks as, e.g., corporate intranets, enterprise networks, home networks, and the like. Accordingly, in one embodiment, PSN 406 represents an inter-networking network of a combination of such IP networks. A plurality of Trunk Gateways (TGWs), e.g., TGW 404A and TGW 404B, are disposed between the CSN and PSN portions of the network 400 for effectuating the interfacing therebetween. An Access Gateway (AGW) node 408 is coupled to the PSN portion 406 for facilitating access to the network from a plurality of access devices (ADs) 410-1 through 410-N. One or more multimedia-capable SIP terminals 412 and multimedia-capable H.323 terminals 414 are operable to originate and terminate multimedia sessions in conjunction with various multimedia services supported by the network 400.

**[0033]** One or more optional multimedia (MM) Service Resource Function (SRF) nodes, e.g., MM-SRF 416, are coupled to PSN 400 for providing bearer resource functionality for converged voice/data services, protocols to request these services, and open APIs for programming bearer-resource-intensive applications as well as content/announcement files. The MM-SRF node 416 does not set up a bearer path between two parties, however, as there is no such dedicated bearer connection in the context of IP networking. Rather, only a logical connection is established between the parties.

**[0034]** Within the multimedia-based service network framework, some of the functions of the MM-SRF node 416 include the following: (i) operating in the media access/resources plane for bearer services by providing multimedia resource services, (ii) providing standard protocols, (iii) interfacing to AS nodes through a multimedia softswitch (e.g., softswitch 418), and (iv) enabling third-party programmability of bearer services and content/announcements through the open APIs. Those skilled in the art should appreciate that some of these functionalities may be embedded within the multimedia softswitch 418 or be distributed across several MM-capable nodes depending on the integration level of the softswitch.

**[0035]** A plurality of hosted applications 420 are co-located at the multimedia softswitch node 418. The specific type of the applications is dependent on the service architecture implementation and application layering. Some of the exemplary applications may include network announcements (in conjunction with SRF 416), video conferencing, digit collection, unified (multimedia) messaging, media streaming and custom announcements, automatic speech recognition (ASR), text-to-speech (TTS), user verification using multimedia, and various enhanced services such as multimedia call waiting, direct connect services, distinctive call notification, emergency override service, presentation of call party profiles based on multimedia, etc. It should



be recognized, in addition, that some of these multimedia services may be provisioned as applications hosted on carrier AS nodes 422 and third-party AS nodes 424, with suitable APIs associated therewith, respectively.

5     **[0036]**     Although the exemplary network embodiment 400 shown in FIG. 4 does not explicitly illustrate SS7 interfaces for effectuating legacy IN/AIN services, those skilled in the art should appreciate that various such SS7 interfaces and SS7-capable signaling gateways (SGWs)  
10     may also be appropriately disposed in the network for providing SS7 functionality.

15     **[0037]**     Referring now to FIG. 5, depicted therein is an exemplary service network arrangement 500 which employs an emergency notification system and method in a multimedia-capable next-generation network 502 in accordance with the teachings of the present invention. It should be appreciated by those skilled in the art upon reference hereto that in one embodiment, the network 502  
20     may be comprised of a combination of various PSN and CSN portions and their hybrids, including local and inter-carrier network portions. A multimedia node or network element 504 is operable to serve a plurality of subscribers, e.g., subscriber 508A operating a multimedia IT device 506A for originating and/or terminating calls.  
25     Similarly, other call parties operating suitable ITs, e.g., call party 508B with IT 506B and call party 508C with IT 506C, are also operably coupled to the network 502.

**[0038]** A softswitch 510 having the multimedia call/session engine functionality as described hereinabove is disposed in the network 502 for call routing and application triggering. Although the softswitch 510 is illustrated as a separate node in this embodiment, it should be recognized that the softswitch functionality may also be provided as part of the serving multimedia node 504. A call treatment server 512 is provided as an application server node coupled to the network 502, wherein suitable multimedia service logic 513 is provided for querying a subscriber emergency notification profile database. Again, as alluded to hereinabove, it should be apparent that the functionality of the call treatment server node 512 may be distributed or embedded, depending upon the service architecture and application layering.

**[0039]** Continuing to refer to FIG. 5, the emergency notification system of the present invention includes a database environment 514 associated with the call treatment server node 512 via a suitable interface. Various emergency notification alert modes, options, restrictions and policies, other related features such as selective override options, and the like are stored in the database environment 514. In a presently preferred exemplary embodiment of the present invention, the database environment 514 is capable of being updated by the subscribers as well as the network operator.

[0040] Reference numeral 509A refers to a call connection in the network 502 between subscriber 508A being served by the multimedia network element 504 and a call party 508B, who may or may not be a subscriber. As used herein, a call party may be a calling party or a called party with respect to another party, e.g., subscriber 508A. In similar fashion, reference numeral 509B refers to a call connection between subscriber 508A and another call party 508C. Reference numeral 509C refers to yet another call connection between subscriber 508A and a non-subscriber call party 508D. It should be appreciated that some of the terminals operated by the parties, e.g., terminal 505 operated by the party 508D, may not be multimedia-compatible. Further, the call parties may be located in different geographic areas and can comprise several types, e.g., family members, business acquaintances, et cetera.

[0041] Continuing to refer to FIG. 5, an authorized agency (e.g., a governmental entity) 511 is operably coupled to network 502 for generating appropriate emergency messages as may be warranted in different situations such as public safety, inclement weather, police action, and the like. Further, the emergency messages generated by the agency 511 may also include information regarding the characteristics of the various emergency situations, e.g., type, degree and severity of an emergency, target area to which the message is to be disseminated, indication as to whether recipients of a

message are to respond in a particular manner, originating area of the emergency message, override capabilities (wherein a delivery restriction option selected by a subscriber in the target area is superseded  
5 by the emergency message to effect delivery), et cetera.

**[0042]** Another entity, referred to as authorized user 513, is operable to generate emergency messages towards a recipient, e.g., IT 506A. In one embodiment, the authorized user 513 may include a subscriber who is away  
10 from his or her primary information appliance, e.g., multimedia IT 506A, and is desirous of transmitting an emergency message to a particular device of his or her choice based on a notification profile associated therewith. It should be apparent that in an exemplary  
15 application, the particular device to which the emergency message is to be delivered can be the multimedia terminal IT 506A itself. User 513 may also include any individual (a subscriber's family member, subscriber's supervisor, or a third-party) who can be verified, authorized and  
20 authenticated, either by the network or via self-authentication means, and attempts to generate an emergency message towards a particular recipient in disposed in the network arrangement 500. Exemplary user verification schemes using multimedia technology may be  
25 found in the following co-pending U.S. patent application which has been cross-referenced and incorporated by reference hereinabove: (i) "User Verification Service In A Multimedia-Capable Network," filed \_\_\_\_\_, Ser.

No.: \_\_\_\_\_ (Attorney Docket Number 1285-0047US), in  
the name(s) of: Babu V. Mani.

**[0043]** Reference numeral 515 refers to a path  
effectuated in the network arrangement 500 for  
disseminating the emergency messages generated by the  
authorized agency 511 with respect to particular  
subscriber 508A. Similarly, reference numeral 517 refers  
to a path effectuated in the network arrangement 500 with  
respect to the emergency message generated by the  
authorized user 513 towards IT 506A. For purposes of the  
present invention, agencies, individual users and other  
entities operable to generate emergency messages may be  
collectively referred to as authorized entities. In a  
presently preferred exemplary embodiment of the present  
invention, the emergency message paths may be established  
between an authorized entity and the intended recipient  
without disrupting an ongoing call connection involving  
the recipient, e.g., call connection 509A, 509B or 509C.

**[0044]** Moreover, in some exemplary embodiments, the  
recipient party may also have additional service features  
such as, for example, multiple call waiting (i.e., the  
capability to wait on multiple incoming calls) and call  
party profile presentation where a call party profile is  
presented to the party on a selectable basis. Additional  
information regarding these multimedia-based services is  
provided in the following co-pending U.S. patent  
applications which have been cross-referenced and  
incorporated by reference hereinabove: (i) "Call Party

Profile Presentation Service In A Multimedia-Capable Network," filed \_\_\_\_\_, Ser. No.: \_\_\_\_\_ (Attorney Docket Number 1285-0048US), in the name(s) of: Babu V. Mani; and (ii) "Call Waiting Service In A  
5 Multimedia-Capable Network," filed \_\_\_\_\_, Ser. No.: \_\_\_\_\_ (Attorney Docket Number 1285-0043US), in the name(s) of: Babu V. Mani.

**[0045]** FIG. 6 depicts an exemplary multimedia interface 600 with browser navigation capability that is  
10 operable with multimedia-capable terminals for effectuating multimedia calls and emergency notification alerts in accordance with the teachings of the present invention. A display 602 is operable to present a graphic user interface (GUI) with a plurality of call-  
15 oriented icons which can be activated via drag-and-drop interaction under the control of a browser client 604 running on a multimedia terminal, e.g., IT 506A depicted in FIG. 5. At least a portion (e.g, portion 651) of the display 602 may be utilized for presenting video/photo  
20 indicia of the call party to the subscriber. Additionally, the portion 651 or other display portions may be utilized for presenting emergency notification pop-up windows, banners, etc. associated with particular emergency messages. A keyboard or keypad 606 and a  
25 cursor pointing device 608 (such as, e.g., a mouse or trackball, and their equivalents) are provided for facilitating the drag-and-drop interaction between the subscriber and the interface. Suitable audio input

devices 610 and audio output devices 612 are associated with the interface 600 for effectuating live speech responses and/or emergency notification announcements. A digital video camera 614 and a still camera 616 are also included for capturing live video and still photographs of the subscriber in order to provide live images as multimedia responses to a call party engaged in a session with the subscriber.

**[0046]** If call waiting (CW) notification features are available to the subscriber, a plurality of waiting callers may be presented on the display 602 as suitable "icons" (not shown in this FIG.). It should be recognized that these icons may comprise audio clip icons, image icons, animation graphics, flashing text messages, et cetera, associated with the waiting callers. Further, the display 602 can include additional icons relating to selected call party profile presentation modes if the subscriber has such service capabilities.

**[0047]** The exemplary multimedia interface 600 also includes a plurality of call modes for effectuating different types of multimedia calls between the subscriber and other parties. An Audio icon 653 is operable to indicate a voice-only mode. Similarly, a Video icon 655 indicates a video-capable call mode that includes audio. A TTS icon 657 is operable, when activated, to convert text messages to speech and vice versa. In addition, icons relating to selective call diversion, call transfer, call rejection, and call

acceptance may also be provided so as to enable the subscriber to select different call treatments and/or to divert an incoming call to a voice mail box, answering service, or a different terminal, etc.

5     **[0048]**     Referring now to FIG. 7, depicted therein is an exemplary embodiment of an emergency notification profile 700 for a subscriber 702 operable with respect to the emergency notification service of the present invention. It should be apparent that in addition to the subscriber profiles such as the notification profile 700, the database environment 514 (shown in FIG. 5) may also be populated with further service features, options and policies relating to other multimedia-enhanced services, e.g., call party profile presentation, distinctive call notification, multiple call waiting, and the like. Moreover, whereas a single subscriber's profile record is exemplified herein, those skilled in the art will recognize that the applicable database environment is typically comprised of numerous such records operable with respect to a plurality of subscribers.

10                     **[0049]**     Preferably, the subscriber 702 is associated with a primary terminal/station by way of a name or other ID 704. A directory number 706 is included to identify the terminal/station associated with the subscriber. In accordance with the teachings of the present invention, an emergency notification alert mode 708 is also specified for the subscriber 702. The emergency notification alert mode 710 is preferably comprised of